

Fig. 1a

A2115+_neime	9	SFHGSTLVKTADG	(0)	YKAIAHIQAGDRVFAKDEASGK	(27)	NNQTLISNKIHPFYS	(3)	WIQAGRLIKKGDTLLS	(0)
ESGAKQTVQNITLK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHNE (SEQ ID NO: 8)					
B0372+_neimeB	6	SFHGSTLVKTADG	(0)	YKAIAIRITGDRVFAKDEASGK	(27)	NNQTLISNKIHPFYS	(3)	WIQAGRLIKKGDTLLS	(0)
ESGAKQTVQNITLK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHND (SEQ ID NO: 9)					
B0655+_neimeB	9	SFHGSTLVKTADG	(0)	YKAIAIRITGDRVFAKDEASGK	(27)	NNQTLISNKIHPFYS	(3)	WIQAGRLIKKGDTLLS	(0)
ESGAKQTVQNITLK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHND (SEQ ID NO: 10)					
3875_87_magma	292	CFVAGTPTVRMADG	(1)	EKAIETVEIGEQVQGTDGTINE	(17)	NSLDEFFVITADHPLFT	(17)	ALNTQLVIGDTLIT	(-)
-----	(19)	VVYNLHLIGNNTYVA	(0)	SGYYVHNY (SEQ ID NO: 11)					
FhaB_pssey	5987	CFAAGTMVSTPDG	(0)	ERAIDTLKVGDIVWSKPEGGGK	(31)	EDESLLVTPGHPFYT	(5)	FVPPVIDLKPGRDRLQS	(-)
-----	(23)	KTYNLTVDVGHTFYV	(2)	LKTWVHNT (SEQ ID NO: 12)					
FhaB1_pseef1-PFO-1	1783	CFAAGTMVATPKG	(0)	ERAETTLKIGDYYWSKPEQGGE	(31)	SSETLEVTPGHPFYT	(5)	FVPLTELOPGDRDLS	(-)
-----	(23)	RTYNLTVDIGHTFYV	(2)	LGTWVHNV (SEQ ID NO: 13)					
FhaB2_pseef1-SBW25	3835	CFAAGTMVATPSG	(0)	DRAIDTLKVGETIVWSKPEHGGE	(31)	EGETLLVTPSHPFTV	(5)	FVPAINLKPGRDLS	(-)
-----	(23)	KTFENLTVDIGHTFYV	(2)	LKTWVHNT (SEQ ID NO: 14)					
SCP1.201_strco	1082	SFPAGTRVLMDAG	(1)	RRSIEQIEAGDLVTTADPTGE	(24)	DGSTLTSTTHHPWNS	(5)	WKNAGDLEAGDTLRT	(0)
PQNTAVVIAATHDW	(4)	DAYDLTVDFGHFYYV	(4)	TDVLVHNN (SEQ ID NO: 15)					
39_9_thefus	314	SFVPGTLVLLADG	(1)	YAPIETITVGDDWWAFDPRGT	(28)	HGGVVVVATDAHPFWV	(5)	WVAALDLEPGTMLRT	(0)
SAGTWVQVRRAVAVR	(5)	RVHNLTVADLHTYYV	(4)	ADALVHNE (SEQ ID NO: 16)					
MaefB1_neigo	347	SFHGSTLVKTADG	(0)	YKAIAHIQAGDRVLSKDEASGE	(27)	NSQTLISNRITHPFS	(3)	WIKADELIAKGSRLLS	(0)
ESGKTQTVRNIVVK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHND (SEQ ID NO: 17)					
BIL2_neigo	9	PFHGSTLVKTADG	(0)	YKAIAIRIVGDDHVFAKDEASGE	(27)	NNQTLISNRITHPFS	(3)	WIKADELIAKGSRLLS	(0)
ESGRTQTVRNIVVK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHNA (SEQ ID NO: 18)					
BIL3_neigo	9	SFHGSTLVKTADG	(0)	YKAIAHIQAGDRVLSKDEASGK	(27)	NSQTLISNRITHPFS	(3)	WIKADELIAKGNRLFA	(0)
ESGKTQTVRNIVVK	(4)	KAYNLTVDWHTYFV	(7)	EGVWVHNS (SEQ ID NO: 19)					

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MafB2_neigo
 ESGKTQTVRNVVK (4) 347 SFHGSTLVKTADG (0) YKALAHIQAGDRVLSKDEAEGE (27) NSQTLISNRHPPFYS (3) WIKADELKAQGSRLLS (0)
 (2/5)
 BIL5_neigo
 ESGKTQTVRNIIVK (4) 9 SFHGSTLVKTADG (0) YKALAHIQAGDRVLSKDEAEGE (27) NSQTLISNRHPPFYS (3) WIKADELKAQGSRLFA (0)
 BIL6_neigo
 ESGRTQTVRNTVVK (4) 9 PFHGSTLVKTADG (0) YKALAHIQGTGEHVFAKDETESGK (27) NSQTLISNRHPPFYS (3) WIKADELKAQGSRLLS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHND (SEQ ID NO: 21)
 MafB1_neimeC
 ESGAKQTVQNITLK (4) 348 SFHGSTLVKTADG (0) YKALAHIRVGESVFAKDETESGK (27) NSQTLISNRHPPFYS (3) WIQAGRLKKGDTLILS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHND (SEQ ID NO: 22)
 BIL2_neimeC
 ESGAKQTVQNITFK (4) 9 PLYVGALVKTADG (0) YKALAHIRVGESVLSKDEAASGK (27) NSQTLISNRHPPFYS (3) WIQAGRLKKGDTLILS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHNA (SEQ ID NO: 24)
 BIL4_neimeC
 ESGKTQTVRNVVK (4) 9 SFHGSTLVKTADG (0) YKALAHIRVGESVLSKDEAASGK (27) NSQTLVSNKIHPPFYS (3) WIKADELKAQGSRLLS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHNA (SEQ ID NO: 25)
 BIL5_neimeC
 ESGAKQTVQNITFK (4) 9 SFHGSTLVKTADG (0) YKALAIRIRTGDRVFAKDEAASGK (27) NNQTLISNKIHPPFYS (3) WIQAGRLKKGDTLILS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHNA (SEQ ID NO: 26)
 BIL6_neimeC
 ESGAKQTVQNITLK (4) 9 SFHGSTLVKTADG (0) YKALAHIQAGDRVLSKDEAEGE (27) NSQTLVSNKIHPPFYS (3) WIQAGRLKKGDTLILS (0)
 (4) KAYNLTAVDWHTYFV (7) EGVWVHNS (SEQ ID NO: 27)
 FhaB_mantha
 ESGEWQTVTKVKK (4) 2881 SFHGDMEVKTDKG (0) YRQISSIKVGDKVLAKNERTGI (27) KYHTIVSNKIHPPFT (24) WWDQHQLQKGYRLLA (0)
 (4) KAYNMTVKEKDHTYFI (7) EGVWVHND (SEQ ID NO: 28)
 BIL1_cloth
 SKGNVLVVEEKKLE (6) 48 CFVAGTLLITVAG (0) LVAIENIKAGDKVIAINTLTFE (22) NGEVIKTTFEHPPFV (4) FVEAKELQVGDKLDD (0)
 (6) KVYNFKVDDDFHTYHV (2) NGILVHNA (SEQ ID NO: 29)
 BIL2_cloth
 SKGNVLVVEEKKLE (6) 31 CFVAGTMLVTAAG (0) LVAIENIKVGDKVIAANPTEFE (22) GGEVIKTTVDHPPFV (4) FVEAVNLQVGDKLVD (0)
 (6) KVYNFKVDDDFHTYHV (2) NEVLVHNA (SEQ ID NO: 30)
 BIL4_cloth
 SRGNVLVVEEKKLE (6) 16 CFVAGTMLLTAG (0) LVAIENIKAGDKVIAINTPTEFE (22) GGEVIKTTFDHPPFV (4) FVEAGKLQVGDKLDD (0)
 (6) KVYNFKVDDDFHTYHV (2) NGVLVHNV (SEQ ID NO: 31)
 BIL5_cloth
 SKGNVLVVEEKKLE (6) 31 CFVAGTMLLTAG (0) LVAIENIKAGDKVIAINTPTEFE (22) GGEVIKTTFDHPPFV (4) FVEAKQLHVGDKLDD (0)
 (6) KVYNFKVDDDFHTYHV (2) NGVLVHNV (SEQ ID NO: 32)

BIL6_cloth	87	CFVAGTMLTVAG	(0)	LVAIENIKAGDKVIAATNPETFE	(22)	NGDVIKTTFEHLFYA	(4)	FVEAKELQVGDKLLD	(0)
SKGNVLVVEDKKIK	(6)	KVYNFQVDDDFHTYHV	(2)	NGVLVHNV (SEQ ID NO: 33)					
BIL8_cloth	8	CFVAGTMLTATG	(0)	LVAIENIKAGDKVIAATNPETFE	(22)	GXEIIKTTLGHLFYV	(4)	FVEAVKLOQPTDKLVD	(0)
SGGNVLVVEKKFE	(6)	KVYNFKVNDFTYHV	(2)	NGILVHNV (SEQ ID NO: 34)					
BIL9_cloth	22	CFVAGTMLTATG	(0)	LVAIENIKAGDKVIAATNPETFE	(22)	GXEIIKTTLGHLFYV	(4)	FVEAVKLOQPTDKLVD	(0)
SGGNVLVVEKKFE	(6)	KVYNFKVNDFTYHV	(2)	NGILVHNV (SEQ ID NO: 35)					
0709_lepin	2026	CFTAGSKVTKLN	(29)	FANIEEIKIGDIVRSWNENTNT	(23)	GEEEIHTTWNHPPRR	(78)	WVKVEDLRLKDQVLR	(0)
SDGSGWGTVTGYYY	(5)	KVYNLEVEDNHHTYVV	(6)	IGYVHVNY (SEQ ID NO: 36)					
3725_lepin	2037	CFVAGSKVTKLN	(29)	FANIEEIRIGDVRSWNENTNT	(23)	GEEEIHTTWNHPPRR	(74)	WVKVEDLRLRDQVLR	(0)
SDGSGWGTVTGYYY	(5)	KVYNLEVEDNHHTYVV	(6)	KGYVHVNY (SEQ ID NO: 37)					
BIL2_gemob	1296	CFAAGTKLTLTRRG	(0)	WVAELLGIGDEVAASRTEHDLT	(24)	GGELIRTTPEHPFWV	(4)	WTAAGSLAAAGDRIAT	(4)
LSGEWVPIAEVFDT	(4)	PVYNLRVADHHHTYFV	(6)	FAAWAHNA (SEQ ID NO: 38)					
BIL1_gemob	6441	CFASGTPMRTPGG	(0)	WCNIENLRYGDFVLSRDEFSSPE	(23)	LGQTIRSTDEHPFFV	(-)	-----	(-)
-----	(37)	TVYNFRVADHHHTYFV	(6)	FSVWAHNI (SEQ ID NO: 39)					
BIL1_pirsp	560	CLVAGTTLVWTDRG	(0)	MRPVESLRLGDDVLSQDVQTS	(22)	GSDEIVASKGHPFWV	(4)	WTTEQLPVPGDALHG	(-)
-----	(16)	KTYNLVVEQTHSYFV	(2)	SRILSHDA (SEQ ID NO: 40)					
BIL1_strav	2125	SFKPTTRVLMKD	(1)	TKPLGKIKPGDILVEAADPTSGH	(28)	RIQLHTTARHRIWD	(5)	WEQAGRLLTGHKVNT	(0)
SGNQHATITSYLAQ	(4)	DNYDLTVEGLHTYYV	(4)	TPVLVHNG (SEQ ID NO: 41)					
BIL2_strav	2105	CFLAGTDILMADG	(1)	TKDIEEVELGDKVQATDPKTGE	(27)	GAEELTATHEHPFWS	(5)	WITAGSLEPGMTLTT	(0)
DDGDTVITGNRAF	(4)	TTYNLTVNDLHTYYA	(4)	TPVLVHNS (SEQ ID NO: 42)					
BIL3_strav	389	SFPAGTRVLMGDG	(2)	TLPIEQITYGDSVLATDPEAGT	(29)	GPPALTATDRHPFWV	(5)	WADARDLNSGDTLRT	(0)
PDGTGVRIDKVTHW	(4)	GAYNLTVNDLHTYYV	(4)	VPVLVHNA (SEQ ID NO: 43)					
o.1070_myxxa	937	CVAPWELLVLLGDG	(1)	EVPAEMLRPGMVRITMHEHERD	(22)	DGRVLVTPDHWRWT	(-)	-----	(-)
-----	(33)	DYMRITVRFAMTYIV	(0)	QGLLAHNL (SEQ ID NO: 44)					

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01078_myxxa 945 CVAPWEPVLLSDG (1) EVPAEMLRPGMKVLTMHHERD (22) DGRAVVTVDHWRRT (-) (4/5)
- (35) DVMKISVRFAKYVV (0) QGLLAHNL (SEQ ID NO: 45)

0649_versp 415 CFPSTGMVQTAG (0) KVAETILKEGDDVFLAYDFLSEC (22) GDSKISATREHFLFWV (5) WVPAYDLQPGMVLRL (0)
- (6) ATHNFEADLHNYFV (2) QGFLVHNG (SEQ ID NO: 46)

05687_versp 548 CFPGTVMVLMADG (1) SVPIEQVVEGDIVLAAEPETE (24) TGSVLKVTGEHPIWT (4) WQHADDLVEGDLILK (-)
- (19) DTFNLCLVEGVHTFYV (4) DAVLVHNT (SEQ ID NO: 47)

03395_versp 3123 CFAPGTPVLMGDG (1) TRPVETIREGDWIMADDPEDE (30) PDGALKATGGHFPWT (4) WIKVCNLQPNDILAD (-)
- (18) ATYNLNSVANIHTFFFV (4) VPVLVHNT (SEQ ID NO: 48)

BIL3_glovi 1741 CFAEGTEVQETETG (0) TKAIEKVPEGEVKLARNEKTGE (29) ERDTLTVTGEHPFFL (4) WTAERLRSGERVQA (0)
VDGKWLRLRVVGLQHQ (4) RTYVNLVEGEHTFFFV (2) TRAWHNE (SEQ ID NO: 49)

BIL2_glovi 115 CFAEGTEVQETETG (0) AKPIELVAPGEVKLARNEQTGE (29) DRDVLTVTGEHPFFL (4) WTAADKLQVGERVQT (0)
VDGQWLRLRVVAGLQAOQ (4) RTYVNLVERDHTFFFV (2) SKAWHNE (SEQ ID NO: 50)

BIL1_glovi 184 CFSEGTEVQETEG (0) AKPIELVAPGEVKLARNEQTGE (29) ERDTLTVTGEHPFFL (4) WTAERLKSGERVQA (0)
ADGKWLRLVAGLQAQ (4) RTYVNLVEGDHTFFFV (2) NQAWHNE (SEQ ID NO: 51)

BIL1_chrv1 485 CFVAGTQVLTDKG (0) LKAIEETVGGEWVWSRSQDTGE (27) RQETFRTTAEHFPFWV (4) WIKASLLQAGVILVLD (-)
- (18) TVFNQIQAEEFQTYHV (2) LGVWVHNA (SEQ ID NO: 52)

BIL4_glovi 81 CFAEGTEVQETETG (0) TKAIEKVPEGEVKLARNEKTGE (29) ERDTLTVTGEHPFFL (4) WTAADKLQAGDRVQA (0)
VDGRWLRLRVVGLAAQ (4) RTYVNLIEGEHTFFFV (2) NQAWHNE (SEQ ID NO: 53)

BIL5_glovi 104 CFGEGETAVQETETR (0) AKPIEQIEPGEVKLARSERTGQ (43) ERDTSTVTGEHPFFYL (-) ----- (-)
- (-) ----- (-) ----- (SEQ ID NO: 54)

BIL3_neimeC 11 ----- (-) ----- (-) ----- (SEQ ID NO: 55) (-) NSQILISNR1HPPFYS (3) WIKAEDLKGSRLLS (0)
ESGKTQTVRNIVVK (4) KAYNLTVADWHTYFV (7) EGVWVHND (SEQ ID NO: 56)

BIL3_cloth 70 CFVAGTMLTATG (0) LVAENIKAGDKVIAATNPETFE (22) NGEVIKTTFEHPFFYV (4) FVEAGKLLQIGDRLVD (0)
- (-) ----- (-) ----- (SEQ ID NO: 56)

BIL7_cloth 17 ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
SKGNVNLVVEEKLE (6) KVYNFKVNDFFTYHV (2) DGILVHNA (SEQ ID NO: 57)

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(5/5) -----
BIL10_cloth 0 ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
----- (-) VYNFKVDNFHTYHV (2) NRVLVHNA (SEQ ID NO: 58) -----
----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
BIL11_cloth 10 ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) FVKEKKLQPGNRLVD (19)
----- (-) ----- (-) ----- (-) ----- (SEQ ID NO: 59) -----
----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
3719_lepin 123 ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) WVKVEDLRLRDQVLR (0)
SDGSWGTVTGIIYY (5) KVYNLEVEDNHTYIV (6) IGYVVHNY (SEQ ID NO: 60) -----
----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
BIL6_glovi 136 CFAEGTEVQT ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
----- (-) ----- (-) ----- (-) ----- (SEQ ID NO: 61) -----
----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-)
BIL7_glovi 13 ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) ----- (-) WTAALERLEPGDRVQA (-)
----- (-) ----- (-) ----- (SEQ ID NO: 62) -----

Fig. 1b

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00126_rhoCA	160	CFTPGLTIDTPAG	(0)	PRVEALRPGRVSTRD	(3)	QEILWIGSRRM	(12)	PVRLGAVRLG	(14)	AADLLVSPQHRLV	(12)
EVLVQACDLVDDAAV	(8)	VTYLNLLFARHQVIRAN	(0)	GVETESF	(SEQ ID NO: 63)						
00199_rhoCA	37	GFYGETVLQTAG	(0)	LRRVSSILEGEKMRFTF	(3)	APVLSIERFAL	(12)	PLSLPAGLFG	(1)	TRNRFVAPEQCLL	(12)
LLVPAKVLGLLPQV	(8)	AVLYRLLFERPELVVTD	(1)	GAWMLCD	(SEQ ID NO: 64)						
00459_rhoCA	38	GFAAGTRVVRTPAG	(0)	LRRRIETLKPGLVETQE	(3)	QPVVAVERTRL	(7)	PIRFAAGAHG	(1)	ERPVILVAPQQRVLV	(12)
EVLVAARTLVGDENV	(7)	VDDYVRLVFDCAHMVFAE	(0)	GLAVECF	(SEQ ID NO: 65)						
00460_rhoCA	174	CFAPSTPIATPGG	(0)	DCPAASILKAGDLVITAD	(3)	QPIIWSGRIAL	(7)	PVRLCAPAFG	(1)	TRDLWVLQHRLVAL	(12)
EVLVPAHHLVGDISA	(8)	LSWHGLLQGHLLIAD	(0)	GCRVESL	(SEQ ID NO: 66)						
00588_rhoCA	473	CFTAGTLIETPRG	(0)	PVVPESLRAGDLVYVTRD	(3)	VPVILWGGRSL	(12)	PVATRENALG	(1)	HGALLLSPQHAVLA	(5)
ERLVRARHLAGLNDP	(10)	VSYHHILLERHGIVTAN	(0)	GLACESL	(SEQ ID NO: 67)						
00746_rhoCA	85	ALARGSVLMLTEDG	(0)	PVAIEDLQPGQGVLTAE	(3)	ERVCWIGSMVI	(15)	LTTRITAEAFG	(4)	ALDLVLGPRARLCL	(12)
ADVVPARAFLDGIVS	(8)	VTYXHVVLEQFGSLRVA	(0)	GLVEAEF	(SEQ ID NO: 68)						
00949_rhoCA	125	CLGTGTMIAAE	(0)	PAPIDWLRLPGRVLT	(3)	QPLLMWVGQHTM	(9)	PILLSAACFG	(4)	ERDVLLSPGTGVLL	(12)
EMFAKARHALPKAEA	(4)	QKLYSMILLATPEVVAE	(0)	GMWVGSV	(SEQ ID NO: 69)						
01216_rhoCA	128	CFAAGTLIATRRG	(0)	PKPVEDLGPEIDLQTS	(3)	RPVQWYGRMRV	(7)	PVRFAPGVLG	(1)	DRALFLSGQHRLVLI	(10)
EVLVAAKALVGLPGI	(7)	VDWVHVMMPTHEVIFAE	(0)	NARAETM	(SEQ ID NO: 70)						
01374_rhoCA	144	AFTTGTLLITMAGG	(1)	QRPIETLAPGDRVLT	(3)	QPVRLVARATL	(7)	PVVISAGTLG	(1)	ESDLVVAPPHHRVFL	(12)
EILVQAKHLVGDGEHV	(7)	VDDYFALVFDREHIVYAE	(0)	GVPVESL	(SEQ ID NO: 71)						
01523_rhoCA	85	CFTATSLIATGQG	(0)	GVPVSELVPGARVITRD	(3)	QEILWVGRRRF	(12)	PVRIAAGALG	(4)	ERDMLVSPNHRFLT	(9)
ERLTMDLVLGLDGI	(7)	VDWQOLLFAHHELVLAD	(0)	GAWSESF	(SEQ ID NO: 72)						
01524_rhoCA	89	CLTPGTLLIETKRG	(0)	QVPVEKLRPGDRVLT	(3)	QPIRWIGRRRL	(12)	PVRIAAGALG	(4)	ETDMLVSPQHRLTI	(12)
EVLAAALHMLGQPGI	(7)	VTYLNLLDAHETIRAN	(0)	GAWTESF	(SEQ ID NO: 73)						
02710_rhoCA	541	CLVAGSRVSTPRG	(0)	PVPVEDLRPEDLVT	(3)	LPVLWIGRRV	(12)	PVEIGAGRIG	(1)	AAPVRLSALHGIAV	(2)
GFLARAGHLLAATGWG	(14)	VLYLHLLLPFHALLSVE	(0)	GLWVESF	(SEQ ID NO: 74)						

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03530_rhoCA 39 GFAMGSRVATMDG (0) LLPVFEFLNLGDRIVTRS (0) (2/4)
QALVAVERLIDGQFI (7) IRIFALHFEAPEVITYAD (0) GVEIGCK (SEQ ID NO: 75)
4825_rhoSP 28 CFTPGTLLIATVRG (0) EVAVEALAAAGDRIVTRD (3) QPLRWISRRRL (12) (4) GQAMVLGSSGTQVLL (12)
EVLAIAKHLVGPRI (7) TTYLHLMFDRHEVVLAN (0) GAWTESF (SEQ ID NO: 76)
BIL2_rhoSP 34 SLTAGTPVLTAG (0) IRPAEGIRPGDRLVARS (0) (16) LVGIAPGALL (4)
PVVLPARLIVDGQLT (7) VDLVLTFLAAPAAIYAS (0) ELHPVTR (SEQ ID NO: 77)
BIL1_brusu 86 CLLKGTLVTTPNG (0) PVAVEKLCVGDLVTTVS (3) LPIKWIGWQNY (12) (4) DRDMIVSPNHRILV (12)
GVLIRVKDLVNGRSI (8) LDYNNIVLDRAHVVLAE (0) GAAVETF (SEQ ID NO: 78)
I10519_brume 15 CLIKGTLVTTPNG (0) PVAVEKLCVGDLVTTVS (3) LPIKWIGWQNY (12) (4) DETLLVPADQPLLL (12)
GVLIRVKDLVNGRSI (8) LDYNNIVLDRAHVVLAE (0) GAAVETF (SEQ ID NO: 79)
BIL1_unknown 217 CFLPGTMKTPSG (0) ERPVEDIQINDEVITFD (8) SKIKWVGSKTI (13) (4) HRDLYLSPNHALFI (1)
GKFIPVRLMVLNHQTI (8) YTYIYHETENHSVITYSD (0) GMLTESY (SEQ ID NO: 80)
BIL2_unknown 184 CFLSGTQIKTKLG (0) VKNNEALQVGDFVTTYD (8) (4) HKDLLVTPEHCLFF (1)
DKFIPARMLVNGSTI (8) YEYYHLETQDHAVTIAD (0) GVRTESY (SEQ ID NO: 81)
BIL1_meteX 139 CFTTGTLIRTAG (0) SVAVEDLIVGDLAVTAS (3) (4) YKDLLVTAEHCLFF (1)
GVLVPVMCLLINGTSV (7) VTYIWHIELDADILLAE (0) GLAESY (SEQ ID NO: 82)
BIL1_silpo 162 CFTPGTAKTAPKG (0) ERLVEDLEVGDRVITRD (3) (4) ARDLRLSHGHPVIV (8)
EVLAIAKHLIGLEGV (7) VTYIHFMFQDQEYVLSD (0) GAWTESF (SEQ ID NO: 83)
BIL2_silpo 697 CFCRGTLIATAGG (0) EIPEKEKLRLPQDRVITRD (3) (4) ERDMIVSPNHRILV (12)
EVLAIAKFLVGDRAI (7) VDYYHMLFDQHBLVSE (0) QAWSESF (SEQ ID NO: 84)
BIL3_silpo 512 CFAAGTRIETDRG (0) GRAIEDIAVGDLVLT RD (3) (4) TRDLIVSPNHRILM (12)
EVLAIAAVHLRDDRHI (7) VTYVHLMFDRHELIYAE (0) GVASESF (SEQ ID NO: 85)
BIL4_silpo 159 CFTPGTTRIATPTG (0) PRLLIEELREGDKVQTRD (3) (4) DAELLVSPERHMLL (12)
EVLVPARDDLVNDSTI (8) VTYVHLLPSHQIILWAN (0) GIEETESF (SEQ ID NO: 86)

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BIL5_silpo 153 CFAAGTIEIESG (0) PIPVETLRPGDLVQTL (3) QPLLQLAKTIV (3/4)
EVFVPARMLVNGSTI (7) LTYHLLPARHEIVFSE (0) GIPTESY (SEQ ID NO: 87)

BIL6_silpo 350 CFVAGTLIDTPYG (0) ERQVERLTPGQDFTRD (3) QEVRWVGERTV
EVLVAAKDLVDGRRV (7) ITYVHVMFDSHQVIYE (0) GLASESF (SEQ ID NO: 88)

BIL7_silpo 248 SLHPETPIATPDG (0) YRPLSKIRRGDTVIVAS (3) VPVLHRSRTM
SVLVPARHLTGGHSV (8) ATYAQLLPTNEAMITA (0) GALAESL (SEQ ID NO: 89)

BIL8_silpo 179 CFVAGSLIDTVEG (0) PRPVETLAVGDLVQVED (3) QPILWIGKRTL
QVFAAAIIHLTNDDTI (8) VTYHHLAFTERHLLRAH (0) GLLSESI (SEQ ID NO: 90)

BIL9_silpo 511 CFTPGTLLIATAHG (0) PRAIETLRPGDLIVTRD (3) QPLRWVGGSRTV
EVLVAATHLLGSPAA (7) VTYMHMLDRHEVIYAN (0) DAATESF (SEQ ID NO: 91)

BIL10_silpo 174 CFTPGTLLIDTEDG (0) PRLLIEELQPGDLIRTL (3) QPLRWIGRTTV
QALVAAKHLVNAVDI (7) VTYHLLFDREHLLIWA (0) GCPTESF (SEQ ID NO: 92)

BIL11_silpo 162 CFAAGTRIATPKG (0) ARPVETLAVGDLVQTL (3) QPIRWIGTRRV
EILIAARRITGLHGI (8) VRYIHFA LDREHIVFAN (0) GLPAETL (SEQ ID NO: 93)

BIL12_silpo 158 SFTRGTHITLGS (1) QVRILEDLKVGDRVLTRD (3) REVRIWGQTTV
EILIKARHLLVNGDTV (7) VDVFQULLFDRHIIYAE (0) GIAETM (SEQ ID NO: 94)

BIL13_silpo 75 AFSRGSLIDTDG (0) PMAIETL LPGDRVITQD (3) QEVVWKGSTVI
PMLTPVQHFVTDGMGI (8) IEVEHICLRRHAINVD (0) GLQFETY (SEQ ID NO: 95)

BIL14_silpo 30 GLPAGTMLETEAG (0) WSPYVEEIRPGTRVATID (1) -----
TYLAPVAAILAGFEGI (7) LPAHSLRFAEEEVVWAQ (-) ----- (SEQ ID NO: 96)

BIL15_silpo 35 GFLAGTLLTQDG (0) EMPYTEFLSPGDRITRD (3) VPLHMHITRAPQ
QAMVRADALVNGDTI (7) MQLFQLHFDSAHVLYAG (-) ----- (SEQ ID NO: 97)

BIL16_silpo 53 GLLAGTSVASNFG (0) WQFYEALKVGDVKLTFD (3) QTVAQIQCETV
YAVVPARMLRGYRG (8) VEVTTLAFHQDEVIVYE (-) ----- (SEQ ID NO: 98)

BIL1_rhile 122 CFLRGTAIIITDGC (0) EKPVENLSIGDRVALPD (3) RPIKWVGRQSF
GILIQVKDVLVNGKTI (10) IEYYAVMLDTHEVILAG (0) GAETESF (SEQ ID NO: 99)

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BIL3_magma	45	CYVTGTRIRTERG	(0)	EVAVEDLQVGDFAVTAS	(3)	RPITWIGHREI	(12)	PVRVRAGAFF	(4)	VNDLFILSPGHPVVLV	(8)
GVLVPVMCLLINGTTI	(7)	VTYWHVELDAHDILLAE	(0)	GLPAESY	(SEQ ID NO: 100)						
BIL4_magma	129	CFVSGTRISVERG	(0)	SIPVELLRIGEKARLAS	(3)	RTITWIGHREI	(12)	PVRVRAGAFF	(4)	ARDLFILSPGHPVLI	(8)
GVLVPVMCLINGTSI	(7)	VTYWHVELDRHDILLAE	(0)	GLPAESY	(SEQ ID NO: 101)						
BIL2_magma	126	CFVTGTMIAATARG	(0)	EVAVEDLRAFDARTAE	(3)	RPIVWIGHREI	(12)	PVRVRTGAFF	(4)	ARDLXLSPGHPVVLV	(8)
GTLVPI-----	(-)	-----	(-)	-----	(-)	-----	(SEQ ID NO: 102)				
BIL5_magma	18	(-)	-----	(-)	-----	(-)	-----	(-)	-----	(-)	(-)
-----	(-)	VTYWHVELDAHDILLAE	(0)	GLPAESY	(SEQ ID NO: 103)						
BIL6_magma	10	(-)	-----	(-)	-----	(-)	-----	(-)	-----	(-)	(-)
RLPAESY-----	(-)	-----	(-)	-----	(-)	-----	(SEQ ID NO: 104)				

SEQ ID NO: 105

[CSP] [FLV] XX [GSWDT] [TESAM] X [VILM] X [TMLK] XX [GN] X (0-100) [IVAL] [EADGS] X [ILVF] XX [G] [DEM] X [VI] X [ASTG]
 X (0-100) [LIFV] X [STVAVL] [TNS] XXH [PLR] [FIWYV] X (0-200) [AVTM] [YFHM] [NDRK] [LFIM] X [VIL] XXXX [TSNE] [YFL] X
 [VAT] X (0-100) [WLVY] [VAS] [H] [ND] X

Fig. 2aSEQ ID NO: 106

[CGAS] [FLY] XX [GEST] [TS] X [TVL] XXXXGX (0-100) [VIAL] [ESAD] X [LI] XX [GEN] [DEAQ] X [VIALM] X [TVLA] X [DSET]
 X (0-100) [PLAM] [VILM] XXXX [ADGHNQS] X (0-100) [ACDEFGHLMQRSTV] [ACEGHKLNQRST] [ADEGNPT] [ILMR
 V] [FILMQRVWY] [ALMV] [AGLMPST] [AEGHPQS] [DEGHLNQRS] [AHQT] [ACFGPQR] [FILMV] [ACFLVY] [AFILMTVW] X (0-100)
 [ADEGLPQSTY] [AFIKLMLRTV] [DFLMV] [AILTV] [AKMPQR] [AIV] [ACDEGH1KLMQRTV] [ACDFHMRTV] [AGILRTV] [ADG
 LNP] [ADFGHKLNPQSTY] [ADEGHIMNPQSTK] [ADEFGHLMQRSTW] [AGIPTV] X (0-100) [AIIMQTVY] [DEKLPMQRSTV]
 [AFHILMTVWY] [AGHNQRT] [FILMV] [ACEHLMRTV] [FLMT] [ADEHNP] [ACDEGHNQRT] [ADEHNP] [ADEGHLQS] [AIIIMSV]
 [ILMV] [FILNRSITVWY] [AGSTV] [ADEGHNQS]

Fig. 2b

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Fig. 3a Fig. 3b

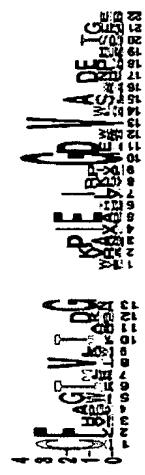


Fig. 3b

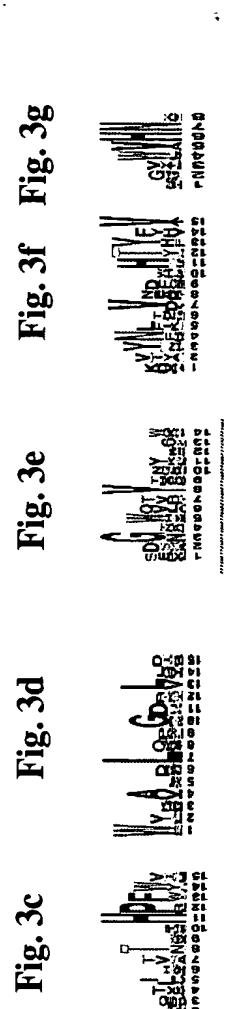


Fig. 3e

Fig. 3f Fig. 3g

Fig. 3h Fig. 3i

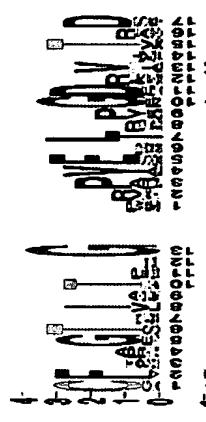


Fig. 3j Fig. 3k Fig. 3l Fig. 3m

Fig. 3m

Fig. 3n Fig. 3o

Fig. 3p Fig. 3q

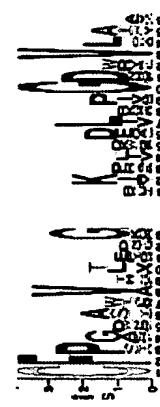


Fig. 3r Fig. 3s

Fig. 3t

七

Fig. 3] Fig. 3v

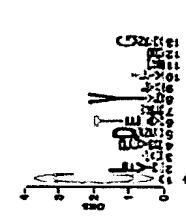
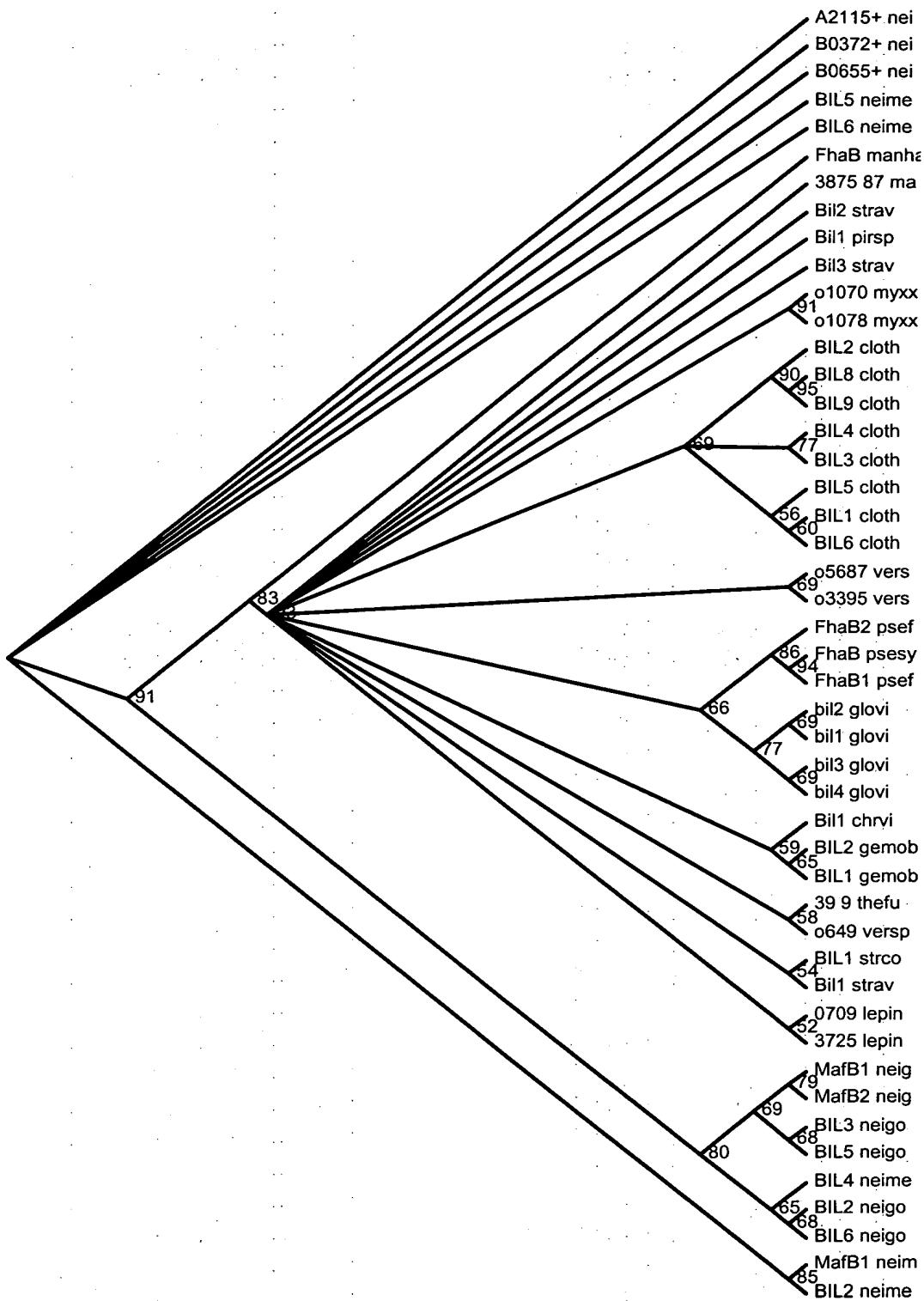


Fig. 3w Fig. 3x

Fig. 3w

Fig. 3w

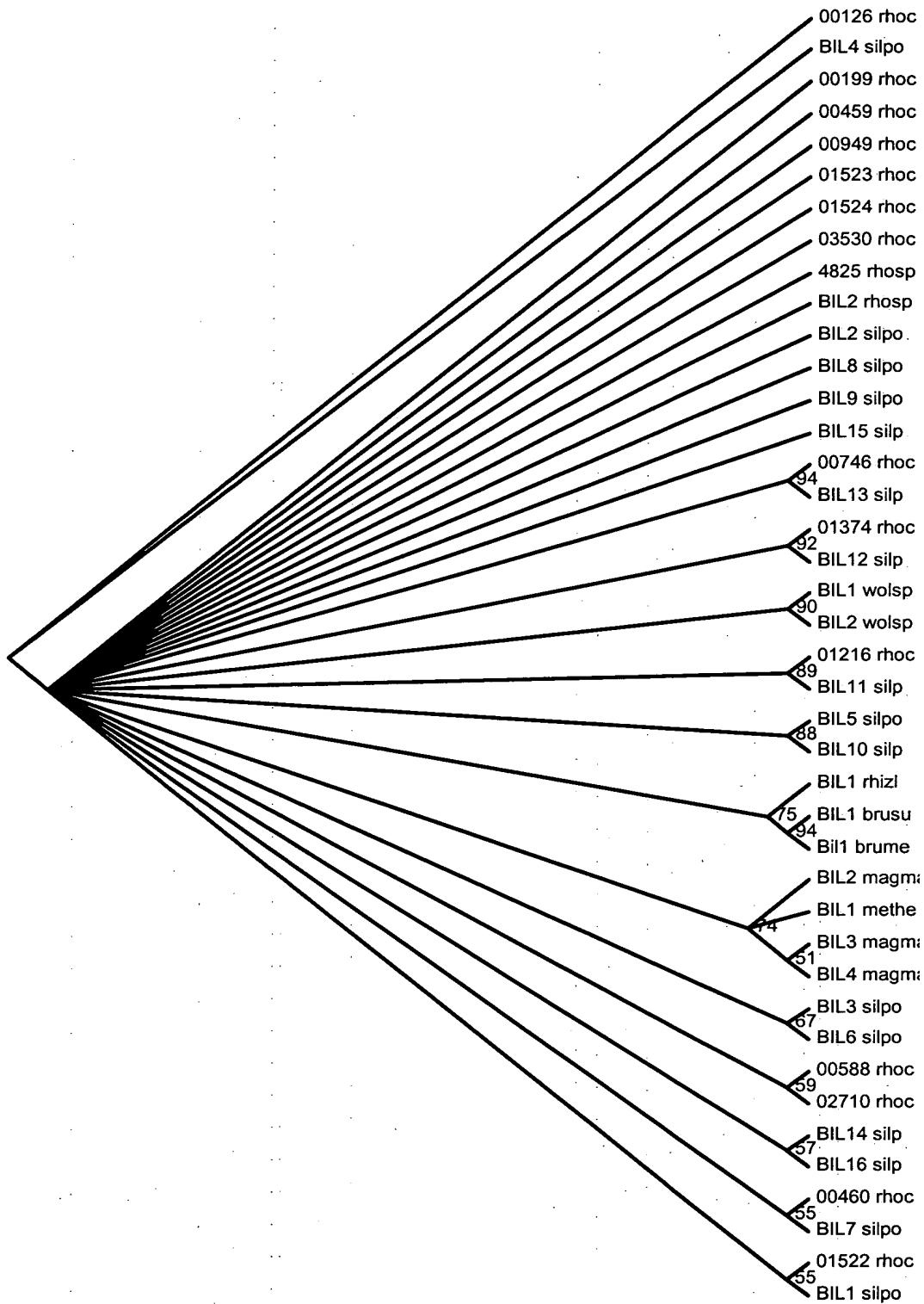
Fig. 4a



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Fig. 4b



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Fig. 5a

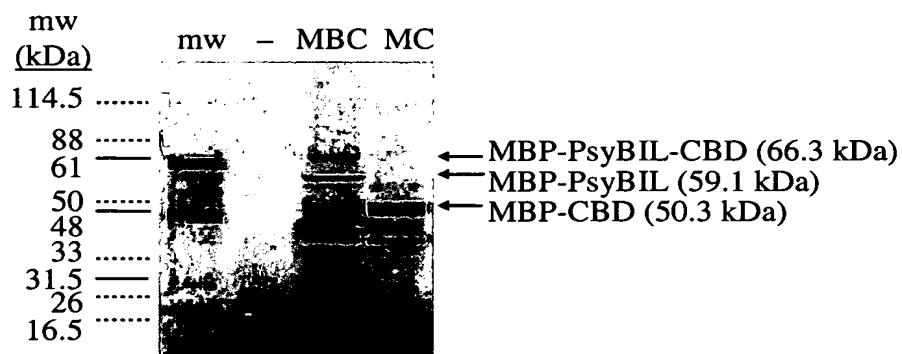


Fig. 5b

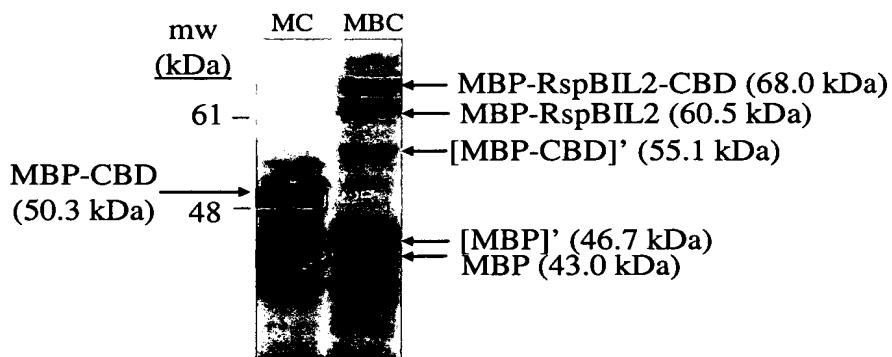


Fig. 5c

SEQ ID NO: 107

CFAAGTMVST PDGERAIDTL KVGDIIVWSKP EGGGKPFAAA ILATHIRTDQ PIYRLKLKGK 6046
QENGQAEDES LLVTPGHPPY VPAQHGFPV IDLKPGDRLQ SLADGASSENT SSEVESLELY 6106
LPVGKTYNLT VDIUGHTFYVG KLKTWVHNT 6135

Fig. 6a

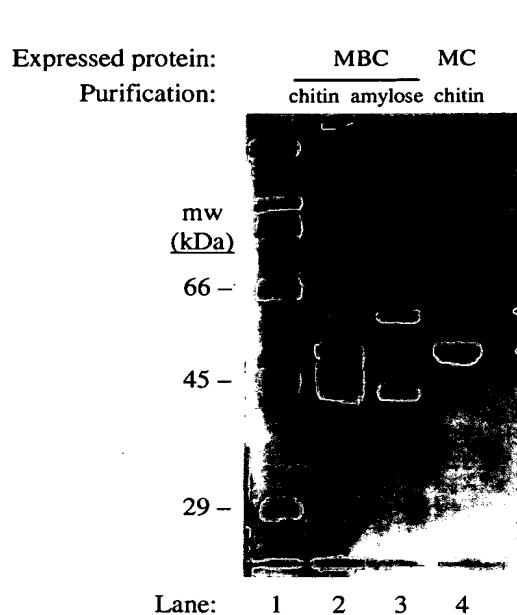


Fig. 6b

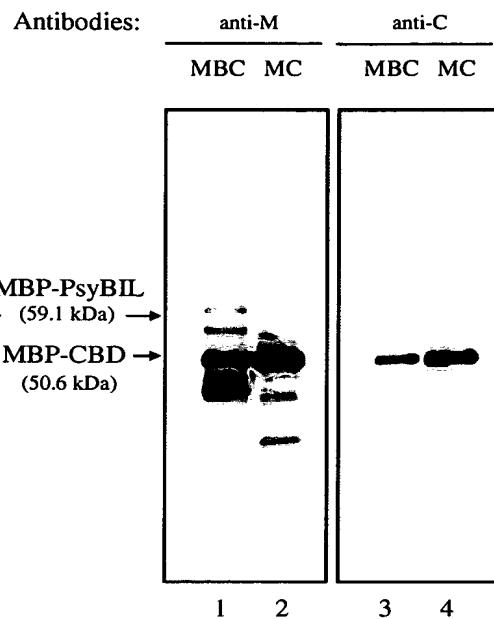


Fig. 6c

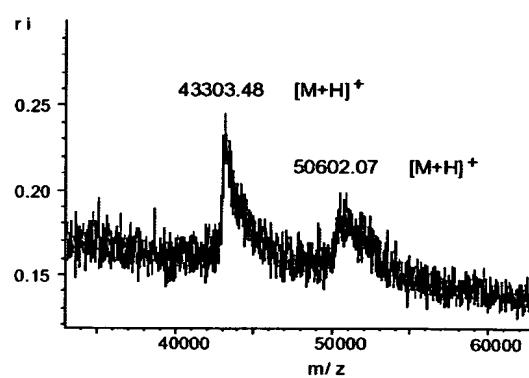
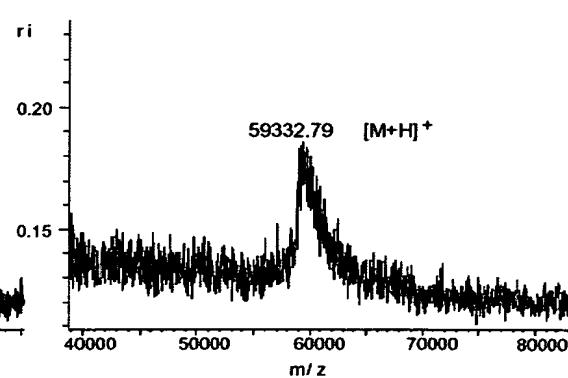


Fig. 6d



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Fig. 7

SEQ ID NO:	108	MKTEEGKLVI WINGDKGYING LAEVGKKFEK DTGIKVTEH PDKLEEKFPQ VAATGDPDI	60
IFWAHDREFGG YAQSGLLAEI TPDKAQFDKL	YPFTWDAVRY NGKLLIAYPIA VEALSLIYNK	120	
DLLPNPPKTIW EEPALDKEL	KAKGKSALMF NLQEPYFTWP LIAADGGYAF KYENGKYDIK	180	
DVGVDNAGAK FLVDLIAGLT	KNKHMNADTD YSIAEAAFNK GETAMTINGP WAWSNIDTSK	240	
VNYGVTVLPT FKQPSKDFV	GVLSAGINAA SPNKELAKEF LENYLITDEG LEAVNKKPL	300	
GAVALKSYEE ELAKDPRIA TMENAOKGEI	MPNIPQMSAF WYAVRTAVIN AASGROTVDE	360	
ALKDAQTNSS SNNNNNNNN	NLGIEGRISE EGSTTSRVDCG GLTGGLNSGLT IMPGVSAMQV	420	
NTAYTAGQLV TYNGKTYKCL	QPHTSLAGWE PSNVPALWQL Q	461	

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Fig. 8

SEQ ID NO: 109 MKTEEGKLLVI WINGDKGYNG LAEVGKKFEK DTGIKVTVEH PDKLEEKFPQ VAATGDPDI 60
IFWAHDRFGG YAQSGLIAETI TPDKAFQDKL YPFTWDAVRY NGKLIAYPIA VEALSLIYNK 120
DILPNPPKTW EEIPALDKEL KAKGKSALMF NIQEPYFTWP LIAADGGYA FYENGKYDIK 180
DVGVDNAGAK AGLTFLVDLLI KNKHMNADTD YSIAEAAFNK GETAMTINGP WAWSNIDTSK 240
VNYGVTVLPT FKQOPS KPKFV GVLSAGINAA SPNKELAKEF LENYLLTDEG LEAVNMDKPL 300
GAVALKSYEE ELAKDPRIA TMENAQKGEI MPNIPQMSAF WYAVRTAVIN AASGRQTVDE 360
ALKDAQTNSS SNNNNNNNNN NILGIEGRISE FGscfaagt vstpdgerai dtlkvgdiw 420
skpeggkpf aaailathir tdqpiyrlkl kgkqengqae desllvtph pfyypaqhgf 480
yvvidlkgd rlqsladgas entssevesl elylpvgkty nltvavghtf yvgklktwvh 540
n 541

Fig. 9

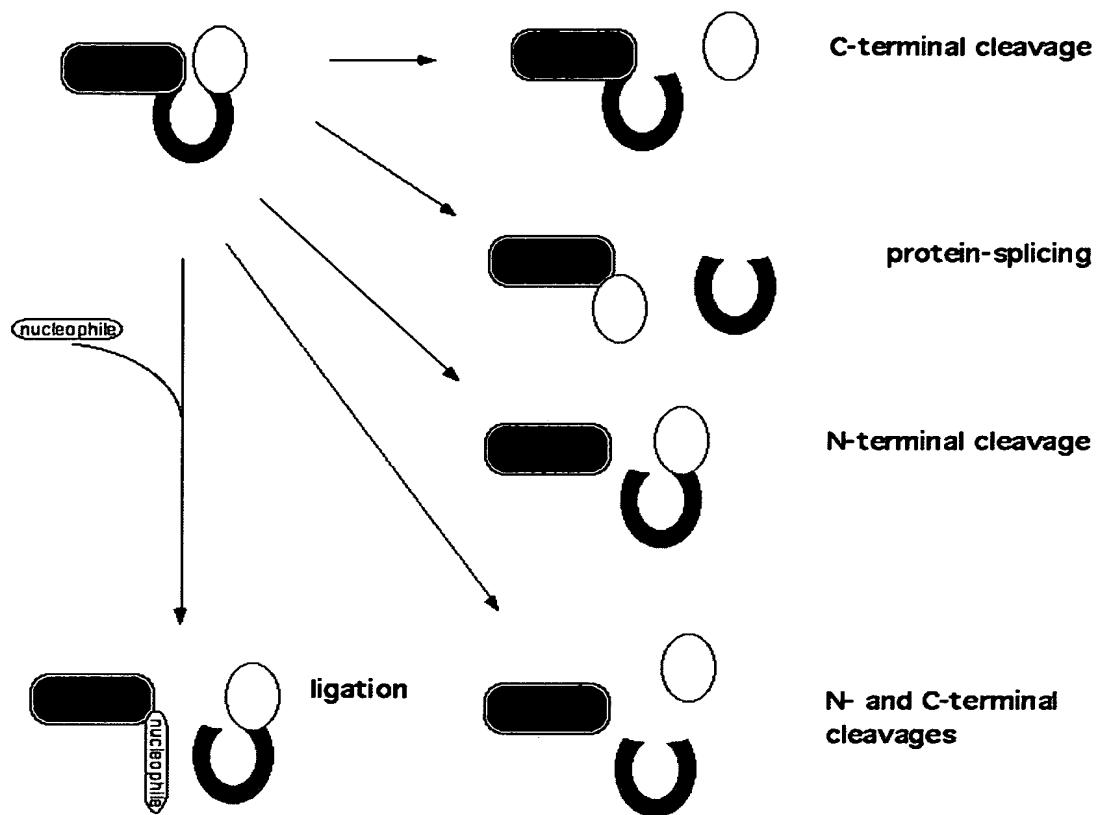


Fig. 10a

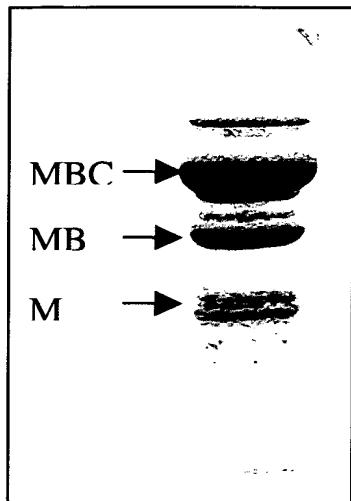


Fig. 10b

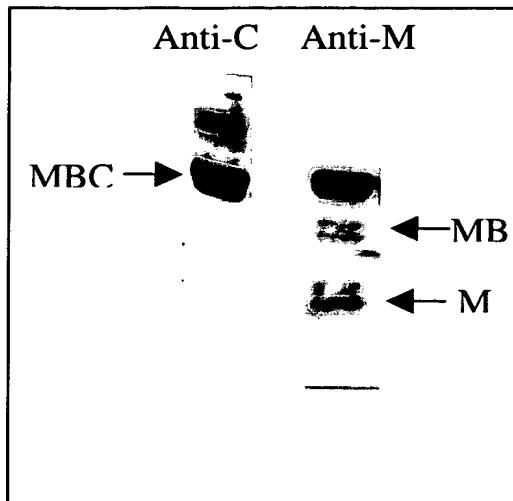


Fig. 10c

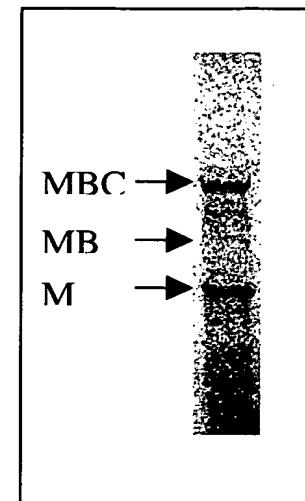


Fig. 11a

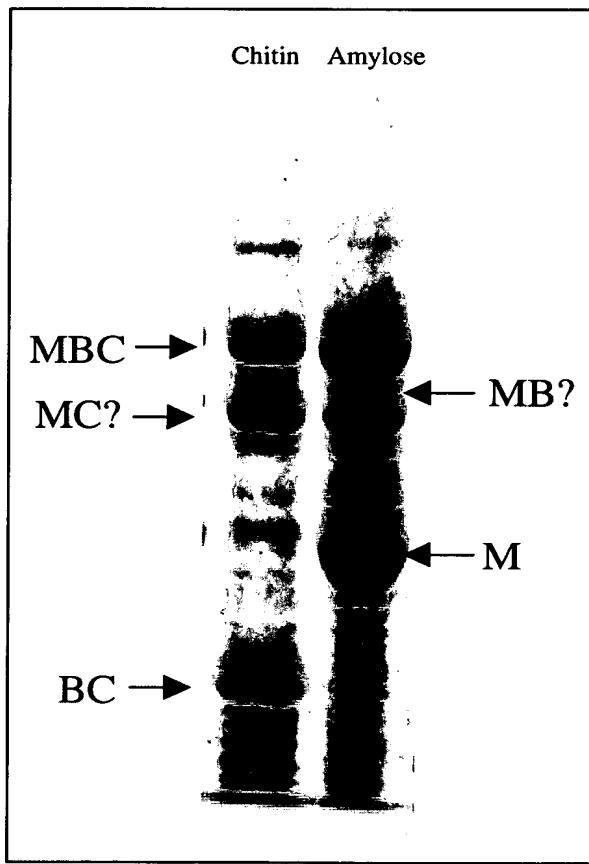


Fig. 11b

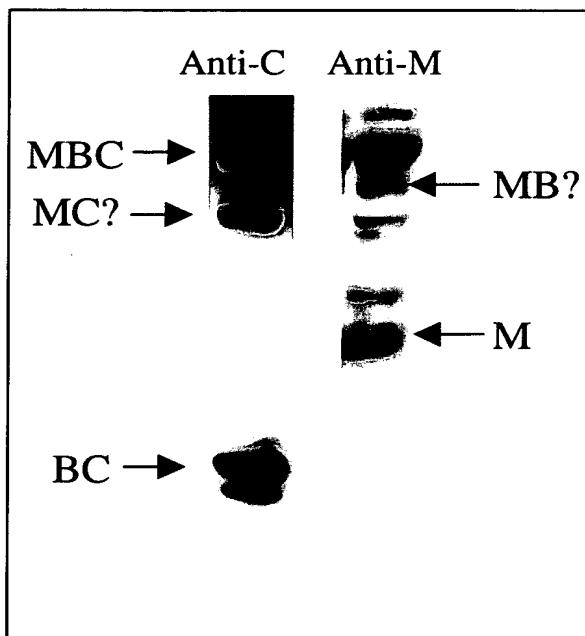


Fig. 12a

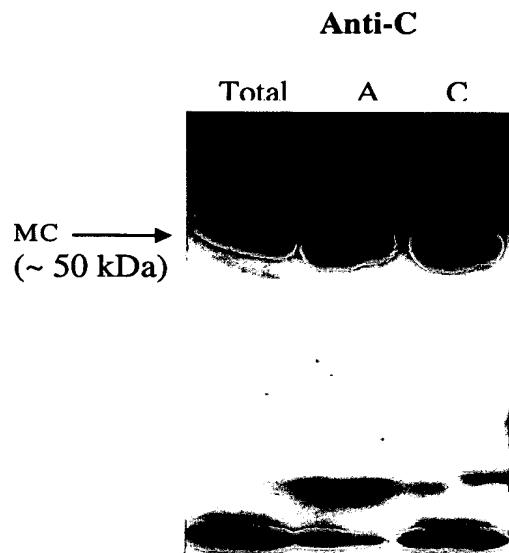


Fig. 12b

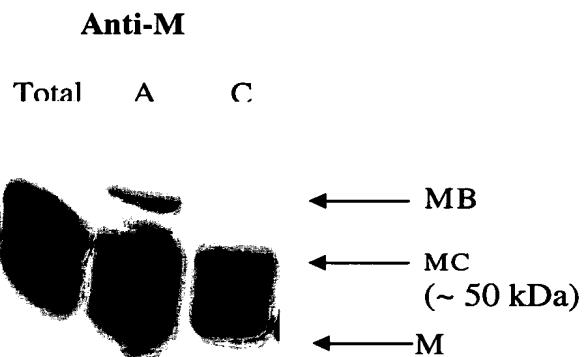
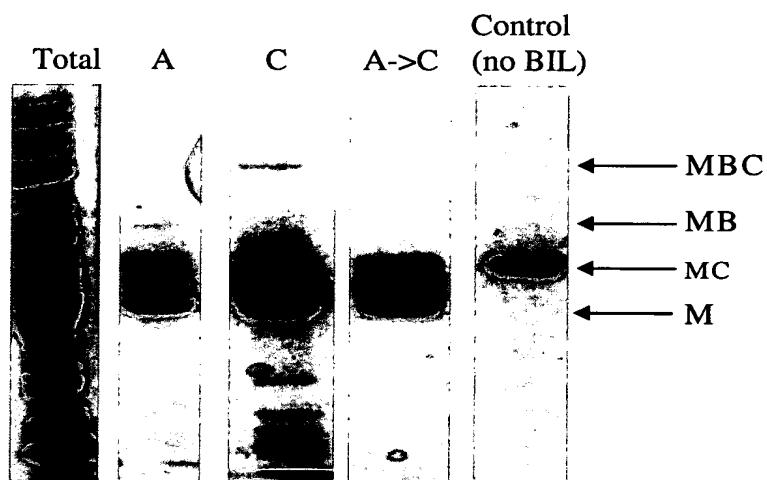


Fig. 12c



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